

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
5 February 2004 (05.02.2004)

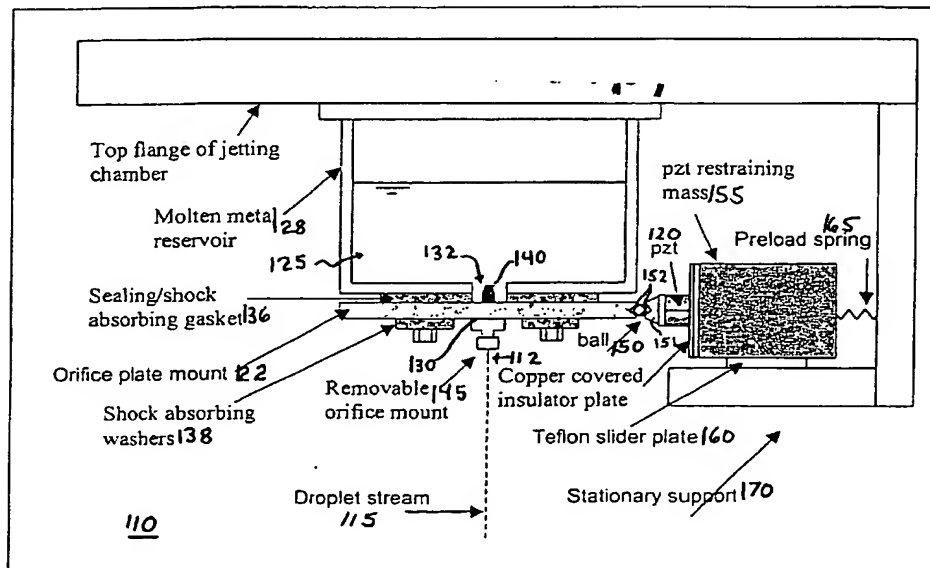
PCT

(10) International Publication Number
WO 2004/011154 A2

- (51) International Patent Classification⁷: **B05B** Irvine, CA 92612 (US). SMITH, Robert, F. [US/US]; 249 Ogle Street, C2, Costa Mesa, CA 92627 (US).
- (21) International Application Number: PCT/US2003/023424 (74) Agents: ROBERTS, Kenneth et al.; Orrick Herrington & Sutcliffe LLP, 4 Park Plaza, Suite 1600, Irvine, CA 92614-2558 (US).
- (22) International Filing Date: 25 July 2003 (25.07.2003)
- (25) Filing Language: English (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (26) Publication Language: English (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (30) Priority Data: 60/399,054 26 July 2002 (26.07.2002) US
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(54) Title: DROPLET GENERATION BY TRANSVERSE DISTURBANCES



(57) Abstract: The present invention enables the formation of droplets due to capillary stream break-up and minimizes variation in droplet formation time by applying a transverse disturbance to initiate instability on the capillary stream's surface. In one embodiment, a side-shaker apparatus comprises a reservoir adapted to hold molten metal, an orifice plate having an orifice in fluid communication with the reservoir, and a transverse disturbance generating member coupled to the orifice plate. The molten metal in the reservoir is ejected from the orifice to form a capillary stream. Due to capillary stream break-up, droplets pinch off from the capillary stream to form a droplet stream. The transverse disturbance generating member vibrates the orifice plate laterally (i.e., side to side) to apply a transverse disturbance to the capillary stream.